

Data sheet

Sheet No.: HPI 1.01 RevB

Date: August 2010

HD-Series

Torque Ratings – (Pneumatic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

HD-Series

Actuator Model	See Bettis' Definitions	Operating Pressure (PSIG)									
		40	50	60	70	80	90	100	120	150	200
		Pressure Torque Output Start/Min./End (lb-in)									
HD 521	Start/End	2727	3409	4091	4773	5455	6137	6819	8182	10228	13637
	Minimum	1600	2000	2400	2800	3200	3600	4000	4800	6000	8001
HD 721	Start/End	5771	7214	8656	10099	11542	12985	14427	17313		
	Minimum	3255	4069	4883	5697	6511	7325	8138	9766		
HD 722	Start/End	11817	14772	17726	20681						
	Minimum	6666	8333	9999	11666						
HD 731	Start/End	8176	10221	12265	14309	16353	18397	20441	24529	30662	40882
	Minimum	4373	5467	6560	7654	8747	9840	10934	13120	16400	21867
HD 732	Start/End	16777	20971	25166	29360	33554	37748	41943	50331		
	Minimum	9187	11484	13781	16078	18375	20672	22969	27562		

Spring-Return Actuators

HD-Series

Actuator Model	Spring Torque Start/Min./End (lb-in)		Operating Pressure (PSIG)									
			40	50	60	70	80	90	100	120	150	200
		Pressure Torque Output Start/Min./End (lb-in)										
HD 521-SR40	Start	1556	1677	2359	3041	3723	4405	5087	5769	7132	9178	12587
	Min.	721	770	1176	1579	1981	2382	2783	3183	3984	5185	7186
	End	953	1006	1688	2370	3052	3734	4416	5097	6461	8507	11916
HD 521-SR60	Start	2340		1827	2509	3191	3872	4554	5236	6600	8645	12055
	Min.	1085		735	1152	1558	1962	2365	2767	3569	4771	6773
	End	1433		822	1504	2186	2867	3549	4231	5595	7640	11050
HD 521-SR80	Start	3030				2722	3404	4086	4767	6131	8177	11586
	Min.	1406				1174	1585	1992	2396	3201	4406	6409
	End	1856				1421	2102	2784	3466	4830	6875	10285
HD 521-SR100	Start	3788						3587	4269	5632	7678	11087
	Min.	1753						1575	1986	2798	4006	6012
	End	2310						1952	2634	3997	6043	9452
Actuator Model	Spring Torque Start/Min./End (lb-in)		Operating Pressure (PSIG)									
		Pressure Torque Output Start/Min./End (lb-in)										
		40	50	60	70	80	90	100	120	150	200	



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EMERSON
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Data sheet

Sheet No.: HPI 1.02 RevB

Date: August 2010

HD-Series

Torque Ratings – (Pneumatic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

HD-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (lb-in)		Operating Pressure (PSIG)										
			40	50	60	70	80	90	100	120	150	200	
			Pressure Torque Output Start/Min./End (lb-in)										
HD 521-SR125	Start	4800									4965	7010	10420
	Min.	2215									2245	3465	5479
	End	2910									2880	4925	8335
HD 521-SR150	Start	5749										6354	9764
	Min.	2660										2939	4965
	End	3506										3872	7281
HD 521-SR200	Start	7703											8432
	Min.	3568											3895
	End	4710											5125
HD 721-SR40	Start	2928	3751	5231	6710	8190	9670	11149	12629	15589	20028		
	Min.	1298	1685	2527	3364	4200	5034	5868	6701	8367	10865		
	End	1776	2343	3823	5302	6782	8262	9741	11221	14181	18620		
HD 721-SR60	Start	4916		3922	5439	6956	8472	9989	11506	14539	19089		
	Min.	2178		1443	2336	3203	4062	4919	5774	7481	10038		
	End	2997		1577	3094	4610	6127	7644	9161	12194	16744		
HD 721-SR80	Start	6576				5697	7214	8730	10247	13281	17831		
	Min.	2920				2211	3096	3964	4826	6540	9103		
	End	4026				2581	4098	5614	7131	10165	14715		
HD 721-SR100	Start	8241						7480	8997	12030	16580		
	Min.	3659						2974	3856	5589	8163		
	End	5047						3581	5098	8131	12681		
HD 721-SR125	Start	9470								9789	14007	21035	
	Min.	4238								4143	6576	10583	
	End	5795								5294	9511	16540	
HD 721-SR150	Start	11221									12806	19834	
	Min.	4991									5574	9609	
	End	6775									7372	14400	
HD 721-SR200	Start	19015										15556	
	Min.	8045										4874	
	End	10279										4874	
Actuator Model	Spring Torque Start/Min./End (lb-in)		Pressure Torque Output Start/Min./End (lb-in)										
			40	50	60	70	80	90	100	120	150	200	
			Operating Pressure (PSIG)										



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Data sheet

Sheet No.: HPI 1.03 RevB

Date: August 2010

HD-Series

Torque Ratings – (Pneumatic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

HD-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (lb-in)		Operating Pressure (PSIG)										
			40	50	60	70	80	90	100	120	150	200	
			Pressure Torque Output Start/Min./End (lb-in)										
HD 722-SR40	Start	7368	7934	11040	14146	17252	20357						
	Min.	2982	3010	4823	6594	8352	10105						
	End	3678	3424	6530	9636	12742	15847						
HD 722-SR60	Start	11402			11669	14775	17881	20987					
	Min.	4622			4297	6137	7926	9697					
	End	5703			4699	7805	10911	14017					
HD 722-SR80	Start	14731					15864	18970					
	Min.	5966					6024	7855					
	End	7351					6844	9950					
HD 722-SR100	Start	18819						16477	19583				
	Min.	7622						4952	7281				
	End	9393						4952	8058				
HD 732-SR40	Start	9603	10527	14622	18716	22810	26905	30999	35094	43282	55566		
	Min.	3888	4035	6419	8752	11069	13379	15685	17989	22593	29491		
	End	4788	4638	8732	12827	16921	21016	25110	29204	37393	49676		
HD 732-SR60	Start	14435			15771	19866	23960	28055	32149	40338	52621		
	Min.	5845			6033	8433	10782	13111	15431	20053	26968		
	End	7201			6921	11015	15110	19204	23298	31487	43771		
HD 732-SR80	Start	19703				17322	21517	25711	29905	38294	50877		
	Min.	7809				5279	8069	10470	12827	17491	24434		
	End	9849				5279	9474	13668	17862	26251	38834		
HD 732-SR100	Start	24077						22138	26232	34421	46704		
	Min.	9758						7426	10039	14825	21834		
	End	12033						7426	11520	19709	31992		
HD 732-SR125	Start	30083								30851	43134		
	Min.	12165								11337	18560		
	End	14961								12364	24647		
HD 732-SR150	Start	36193									39365		
	Min.	14652									15022		
	End	18044									17175		
Actuator Model	Spring Torque Start/Min./End (lb-in)		Pressure Torque Output Start/Min./End (lb-in)										
			40	50	60	70	80	90	100	120	150	200	
			Operating Pressure (PSIG)										



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Data sheet

Sheet No.: HHI 1.01 RevB

Date: August 2010

HD-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Double-Acting Actuators

HD-Series

Actuator Model	See Bettis' Definitions	Operating Pressure (PSIG)									
		500	750	1000	1200	1400	1500	1800	2000	2500	3000
		Pressure Torque Output Start/Min./End (lb-in)									
H251.5	Start/End		5068	6757	8108	9459	10135	12162	13514	16892	20270
	Minimum		2962	3949	4739	5528	5923	7108	7898	9872	11846
H352.1	Start/End	9200	13799	18399	22079	25759	27599	33118	36798	45998	55197
	Minimum	5376	8065	10753	12903	15054	16129	19355	21506	26882	32258

Spring-Return Actuators

HD-Series

Actuator Model	Spring Torque Start/Min./End (lb-in)	Operating Pressure (PSIG)										
		500	750	1000	1200	1400	1500	1800	2000	2500	3000	
		Pressure Torque Output Start/Min./End (lb-in)										
H251.5-SR540	Start	1578	2269	3936	5604	6937	8271	8938	10939	12273	15607	18942
	Min.	737	1131	2124	3114	3904	4695	5090	6276	7066	9041	11016
	End	964	1591	3258	4925	6259	7593	8260	10261	11594	14929	18263
H251.5-SR560	Start	2372		3398	5065	6399	7733	8400	10400	11734	15069	18403
	Min.	1109		1693	2687	3480	4271	4667	5853	6644	8620	10595
	End	1451		2380	4048	5381	6715	7382	9383	10717	14051	17386
H251.5-SR580	Start	3072		2923	4590	5924	7258	7925	9925	11259	14594	17928
	Min.	1437		1301	2307	3102	3896	4292	5479	6271	8247	10224
	End	1881		1606	3274	4607	5941	6608	8609	9943	13277	16612
H251.5-SR5100	Start	3837			4083	5417	6751	7418	9419	10752	14087	17421
	Min.	1791			1885	2688	3485	3882	5072	5864	7843	9819
	End	2339			2428	3761	5095	5762	7763	9097	12431	15766
H251.5-SR5125	Start	4863			3409	4743	6077	6744	8744	10078	13413	16747
	Min.	2264			1276	2119	2928	3328	4524	5318	7300	9279
	End	2949			1294	2628	3962	4629	6630	7963	11298	14632
H251.5-SR5150	Start	5827				4077	5410	6077	8078	9412	12746	16081
	Min.	2719				1534	2379	2787	3993	4791	6778	8759
	End	3552				1563	2897	3564	5564	6898	10233	13567
H251.5-SR780	Start	6095						5443	7444	8778	12112	15447
	Min.	2850						2253	3482	4286	6280	8264
	End	3732						2555	4556	5890	9224	12559
Actuator Model	Spring Torque Start/Min./End (lb-in)	Pressure Torque Output Start/Min./End (lb-in)										
		500	750	1000	1200	1400	1500	1800	2000	2500	3000	
		Operating Pressure (PSIG)										



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EMERSON
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Data sheet

Sheet No.: HHI 1.02 RevB

Date: August 2010

HD-Series

Torque Ratings – (Hydraulic)

All Published Torques are Guaranteed Minimum Values.

Spring-Return Actuators

HD-Series (cont.)

Actuator Model	Spring Torque Start/Min./End (lb-in)		Operating Pressure (PSIG)									
			500	750	1000	1200	1400	1500	1800	2000	2500	3000
			Pressure Torque Output Start/Min./End (lb-in)									
H251.5-SR7100	Start	7638							6285	7619	10953	14288
	Min.	3572							2484	3323	5345	7340
	End	4678							2671	4005	7340	10674
H251.5-SR7125	Start	9470									9593	12928
	Min.	4427									4204	6229
	End	5795									5098	8432
H251.5-SR7150	Start	11221										11727
	Min.	5214										5162
	End	6775										6293
H352.1-SR740	Start	8902		8197	12737	16369	20001	21817	27265	30897	39978	49058
	Min.	3786		2739	5770	7965	10140	11224	14468	16626	22015	27399
	End	4437		2739	7279	10912	14544	16360	21808	25440	34520	43600
H352.1-SR760	Start	13380				13638	17270	19086	24534	28166	37246	46326
	Min.	5692				5226	7524	8638	11931	14108	19524	24923
	End	6672				5438	9070	10886	16334	19966	29046	38126
H352.1-SR780	Start	17826						16349	21797	25429	34510	43590
	Min.	7592						5452	9285	11518	17000	22427
	End	8911						5453	10901	14533	23613	32693
H352.1-SR7100	Start	22314							19055	22687	31767	40847
	Min.	9504							5415	8695	14379	19868
	End	11155							5417	9049	18129	27210
H352.1-SR7125	Start	27882									28455	37535
	Min.	11847									10893	16614
	End	13865									11322	20402
Actuator Model	Spring Torque Start/Min./End (lb-in)		Pressure Torque Output Start/Min./End (lb-in)									
			500	750	1000	1200	1400	1500	1800	2000	2500	3000
			Operating Pressure (PSIG)									



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